

# MULTISTAGED AMPLIFICATION CIRCUIT

## Abstract

A plurality of transistors  $Q_i$  ( $i=1$  to  $n$ ), which are connected to a plurality of differential amplifiers 1, 2, and 3 and which are connected in a multistaged manner and connected to one constant current source 4 by a current mirror, are arranged collectively on an input side of the constant current source 4. Due to this, the wiring length between the constant current source 4 and the transistors  $Q_i$  is shortened to the utmost, and the stability of circuit can be improved. Also, this can restrict the unfavorableness that noise is superposed on the wiring. Additionally, a voltage drop will not occur due to supplied resistance on the ground line, due to each transistor  $Q_i$  being grounded to the same place via separate ground lines 6, 7, and 8. Because of this, the current can be supplied from the constant current source 4 to all transistors  $Q_i$  without breaking the balance of the current mirror.